ABSTRACT OF THE DISCLOSURE

A memory includes: first and second recording layers for recording information by utilizing a reversible phase change between a crystalline phase and an amorphous phase which occurs due to increases in temperature caused by application of an electric current pulse. The crystallization temperatures of the first and second recording layers, T_{x1} and T_{x2}, have the relationship $T_{x1} < T_{x2}$. The crystallization times of the first and second recording layers, t_{x1} and t_{x2}, have the relationship $t_{x1} > t_{x2}$. $R_{a1}+R_{a2}$, $R_{a1}+R_{c2}$, $R_{c1}+R_{a2}$, and $R_{c1}+R_{c2}$ are different from one another where the resistance value of the first recording layer in the amorphous phase is R_{a1}, the resistance value of the first recording layer in the crystalline phase is R_{c1}, the resistance value of the second recording layer in the amorphous phase is R_{a2}, and the resistance value of the second recording layer in the crystalline phase is R_{c2}.